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CLAIMS

[Claim(s)]

[Claim 1] The cursor controller characterized by to consist of the cursor-advance means which is equipment which controls a cursor location by voice, and moves said cursor based on a speech-recognition means, a sound-volume judging means, an amount judging means of cursor advances judge the movement magnitude of said cursor based on the output of this sound-volume judging means, and the output of said speech-recognition means and the output of said amount judging means of cursor advances, and an output means display the output of this cursor-advance means.

[Claim 2] The cursor controller characterized by to consist of the cursor-advance means which is equipment which controls a cursor location by voice, and moves said cursor based on a speech-recognition means, an utterance length judging means, an amount judging means of cursor advances judge the movement magnitude of said cursor based on the output of this utterance length judging means, and the output of said speech-recognition means and the output of said amount judging means of cursor advances, and an output means display the output of this cursor-advance means.

[Translation done.]

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Industrial Application] This invention relates to the equipment which controls the cursor location of the equipment using cursor, such as a personal computer and a word processor.

[0002]

[Description of the Prior Art] Cursor advance equipment with voice has been developed for the purpose of use in the scene which must move cursor without using a hand conventionally, and use of a man with trouble in a hand. If a configuration like drawing 5 is taken and a user utters the "right" etc., cursor will move these equipments in the direction corresponding to it. The outline of such equipment is stated to **** of the Institute of Electronics, Information and Communication Engineers spring national conference A-228 etc. in 1991, for example "the cursor location control system using voice."

[0003]

[Problem(s) to be Solved by the Invention] However, what is controllable using these systems was only a direction which moves cursor. For example, when a user directs the right translation of cursor, only the distance decided beforehand moves cursor rightward. For this reason, when it was going to direct migration of a long distance, the same utterance had to be performed repeatedly, the cursor advance had to be repeated, and there was a trouble that it was very troublesome for a user.

[0004] The purpose of this invention is to offer the cursor controller which can both control the migration direction of cursor, and migration length by utterance easily.

[0005]

[Means for Solving the Problem] The 1st invention is equipment which controls a cursor location by voice, and is characterized by to consist of the cursor-advance means which moves said cursor based on a speech-recognition means, a sound-volume judging means, an amount judging means of cursor advances judge the movement magnitude of said cursor based on the output of this sound-volume judging means, and the output of said speech-recognition means and the output of said amount judging means of cursor advances, and an output means display the output of this cursor-advance means.

[0006] The 2nd invention is equipment which controls a cursor location by voice, and characterizes by to consist of the cursor-advance means which moves said cursor based on a speech-recognition means, an utterance length judging means, an amount judging means of cursor advances judge the movement magnitude of said cursor based on the output of this utterance length judging means, and the output of said speech-recognition means and the output of said amount judging means of cursor advances, and an output means display the output of this cursor-advance means.

[0007]

[Example] Drawing 1 is the block diagram showing one example of the 1st invention. This cursor controller consists of the speech recognition means 101, the sound-volume judging means 102, an amount judging means 103 of cursor advances, a cursor advance means 104, and an output means 105. The speech recognition means 101 can use a voice input terminal (for example, Nippon Electric Co., Ltd. SR- 150) etc. The sound-volume judging means 102, the amount judging means 103 of cursor

advances, and the cursor advance means 104 can use a microprocessor etc. The output means 105 can use a display etc.

[0008] The actuation at the time of voice performing cursor control is explained using the flow chart of drawing 2 using this cursor controller. First, the speech recognition means 101 recognizes the voice which the user uttered (step 301), and the sound-volume judging means 102 judges the sound volume of the voice which the user uttered (step 302). the function to judge audio sound volume -- for example, the Sony make -- it is stated to the operating manual of cassette coder TCM-18. Next, based on the output of the sound-volume judging means 102, the amount judging means 103 of cursor advances determines the movement magnitude of cursor (step 303). For example, what is necessary is just to constitute as long-distance migration of the cursor is carried out, so that the sound volume of a user's voice is large, and short distance migration of the cursor is carried out so that sound volume is small. Next, based on the output of the speech recognition means 101, and the output of the amount judging means 103 of cursor advances, the cursor displayed on the output means 105 is moved (step 304). For example, utterance is the "right" and cursor is moved to the right ten times as the migration length corresponding to the sound volume of utterance is 10.

[0009] Next, the cursor controller of the 2nd invention is explained. Drawing 3 is the block diagram showing one example of the 2nd invention. In the configuration of drawing 1, this cursor controller permutes the sound-volume judging means 102 with the utterance length judging means 202, and permutes the amount judging means 103 of cursor advances based on sound volume with the amount judging means 203 of cursor advances based on utterance length. Both the utterance length judging means 202 and the amount judging means 203 of cursor advances can use a microprocessor etc.

[0010] The actuation at the time of realizing cursor control with voice using this cursor controller is explained using the flow chart of drawing 4. First, the speech recognition means 101 recognizes the voice which the user uttered (step 301), and the utterance length judging means 202 judges the die length of the utterance which the user uttered (step 402). the function to judge a user's utterance length -- for example, the Sony make -- it is stated to the operating manual of cassette coder TCM-18. Next, based on the output of the utterance length judging means 202, the amount judging means 203 of cursor advances determines the movement magnitude of cursor (step 403). For example, what is necessary is just to constitute as long-distance migration of the cursor is carried out, so that a user's utterance is long, and short distance migration of the cursor is carried out so that utterance is short. Next, based on the output of the speech recognition means 101, and the output of the amount judging means 103 of cursor advances, the cursor displayed on the output means 105 is moved (step 304). For example, utterance is the "right" and cursor is moved to the right ten times as the migration length corresponding to the die length of utterance is 10.

[0011]

[Effect of the Invention] By using the cursor controller of the 1st and the 2nd invention, the migration direction of cursor and migration length can both be easily controlled now by voice. Like before, in case long-distance migration of the cursor is carried out, it is not necessary to repeat the same utterance repeatedly, and cursor control with voice becomes very easy.

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is the block diagram showing the 1st configuration of the cursor controller of invention.

[Drawing 2] It is the flow chart which shows actuation of the cursor controller of the 1st invention.

[Drawing 3] It is the block diagram showing the 2nd configuration of the cursor controller of invention.

[Drawing 4] It is the flow chart which shows actuation of the cursor controller of the 2nd invention.

[Drawing 5] It is the block diagram showing the configuration of a cursor controller with the conventional voice.

[Description of Notations]

101 Speech Recognition Means

102 Sound-Volume Judging Means

103 The Amount Judging Means of Cursor Advances Based on Sound Volume

104 Cursor Advance Means

105 Output Means

202 Utterance Length Judging Means

203 The Amount Judging Means of Cursor Advances Based on Utterance Length

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